

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended) An input device for scrolling an image relative to a display screen, the input device comprising:
 - a scroll wheel rotatable in opposing first and second directions about an axis; and
 - a scroll wheel locking element movable to a first position that prevents the rotation of the scroll wheel in the first direction and permits rotation of the scroll wheel in the second direction, and movable to a second position that prevents the rotation of the scroll wheel in the second direction and permits rotation of the scroll wheel in the first direction.
2. (canceled)
3. (original) The input device recited in claim 1, further comprising a lockable wheel, wherein the lockable wheel and the scroll wheel are coupled to one another.
4. (original) The input device recited in claim 3, wherein the lockable wheel and the scroll wheel are coupled to a common axle.
5. (original) The input device recited in claim 3, wherein the lockable wheel includes a plurality of angularly spaced pins.
6. (original) The input device recited in claim 1, further comprising a solenoid coupled to the scroll wheel locking element to move the scroll wheel locking element between multiple positions.

7. (original) The input device recited in claim 1, wherein the input device is one of a mouse, a trackball, and a keyboard.

8. (canceled)

9. (canceled)

10. (currently amended) An input device for scrolling an image relative to a display screen, the input device comprising:

a scroll wheel rotatable in opposing first and second directions;

a unidirectional scroll wheel locking system, wherein the unidirectional scroll wheel locking system includes a ratchet and a pawl. The input device recited in claim 9, wherein the ratchet is a lockable wheel; said input device further comprising

an axle, wherein the scroll wheel and the lockable wheel are mounted to the axle such that rotation of the scroll wheel causes rotation of the lockable wheel, the lockable wheel being spaced from the scroll wheel; and

a light source and a light sensor positioned on opposite sides of the lockable wheel.

11. (original) The input device recited in claim 10, wherein the lockable wheel includes a plurality of openings defined therein such that light from the light source may pass through the openings and toward the light detector when the lockable wheel rotates.

12. (canceled)

13. (currently amended) The input device recited in claim 10-12, wherein the pawl is operable to permit motion rotational movement in a first direction only when in the pawl is in a first position, and is operable to permit motion rotational movement in a second direction only when in the pawl is in a second position.

14. (currently amended) An input device for scrolling an image relative to a display screen, the input device comprising:

a housing having an aperture;

a scroll wheel extending partially through the aperture, the scroll wheel being rotatable in opposing first and second rotational directions;

a scroll wheel locking element movable in a first direction and biased in a second direction, the second direction being angularly displaced from the first direction;
and

a controller configured to activate a scroll wheel locking element to prevent the rotation of the scroll wheel in the first rotational direction and permit rotation of the scroll wheel in the second rotational direction.

15. (original) The input device recited in claim 14, wherein the controller is configured to activate the scroll wheel locking element in response to a user scrolling a document to an end of the document.

16. (original) The input device recited in claim 15, wherein the controller includes a microprocessor.

17. (original) The input device recited in claim 14, wherein the input device is one of a mouse, a trackball, and a keyboard.

18. (currently amended) An input device for scrolling an image relative to a display screen, the input device comprising:

a scroll wheel rotatable in opposing first and second directions; and

a scroll wheel locking lever positionable in first, second, and third distinct positions;
wherein the scroll wheel locking lever moves along a path between the first, second, and third positions.

19. (original) The input device recited in claim 18, further comprising a lockable wheel having angularly spaced lockable members and wherein the scroll wheel locking lever is tangential to the lockable members.

20. (original) The input device recited in claim 18, wherein the scroll wheel locking lever has a locking element including a first surface and a second surface, wherein the first surface is disposed to physically engage an angularly spaced lockable member and prevent rotation of the lockable wheel when the scroll wheel is rotated in a first direction, and the second surface is disposed to physically engage an angularly spaced lockable member by permitting the rotation of the lockable wheel when the scroll wheel is rotated in a second direction.

21. (newly presented) The input device recited in claim 7, wherein the scroll wheel locking element includes a plurality of spaced teeth.

22. (newly presented) The input device recited in claim 13, wherein the pawl is movable to a third position, between the first and second positions, which permits rotational movement of the scroll wheel in both the first and second directions.

23. (newly presented) The input device recited in claim 22, wherein the pawl is pivotally coupled to an arm, and the arm is pivotally coupled to an actuator, the input device further comprising a biasing device acting on the pawl.

24. (newly presented) The input device recited in claim 18, further comprising an actuator coupled to the scroll wheel locking lever to move the scroll wheel locking lever between the first, second, and third positions.